of admitting those in the lobby into the full data conference. The user of the external computing system may, for example, call the user of the external computing system that is waiting in the lobby to verify identity. Alternatively, the lobby server may facilitate an electronic authentication mechanism in which the external computing system provides a digital signature to the lobby server. Additionally, the external server may (with or without the lobby server's assistance) challenge the intranet computing system such that the intranet computing system may likely only successfully achieve the challenge if they are on an invitation list or if they are the party it claims it is.

[0047] Accordingly, a higher level of security is achieved when engaging in data conferencing even if some of the participants in the data conference are external computing systems. The present invention may be embodied in other specific forms without departing from its spirit or essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes, which come within the meaning and range of equivalency of the claims, are to be embraced within their scope.

[0048] What is claimed and desired secured by United States Letters Patent is:

1.   In a network environment that includes a trusted network, an intranet and an external network, and a lobby server that intercedes to allow external computing systems to be scrutinized before being admitted to a data conference with one or more intranet computing systems, a method for the lobby server establishing a data conference between one or more intranet computing systems and one or more external computing systems, the method comprising the following:

an act of a lobby server receiving a request to establish a data conference from a conference organizing computing system in the intranet;

an act of determining that the conference organizing computing system is authorized to establish the data conference;

an act of establishing a lobby that may be joined by potential participating computing systems in the external network, the lobby being an object or group of objects that permits authorization of potential participating computing systems in the external without directly allowing access to the subject data of the data conference;

an act of receiving a request to join the lobby or data conference from at least one of the potential participating computing systems in the external network;

an act of joining the at least one of the potential participating computing systems to the lobby;

an act of notifying the conference organizing computing system that the at least one potential participating computing system has requested access to the data conference;

an act of receiving an indication from an intranet computing system that the at least one potential participating computing system is authorized to join the data conference; and

an act of joining the at least one potential participating computing system to the data conference.

2.   A method in accordance with Claim 1, further comprising the following prior to the act of joining the at least one potential participating computing system to the lobby:

an act of determining that the at least one potential participating computing system is authorized to join the lobby.

3.   A method in accordance with Claim 2, wherein the act of determining that the at least one potential participating computing system is authorized to join the lobby comprises the following:

an act of determining that the at least one potential participating computing system has properly provided a conference identifier corresponding to the data conference.

4.   A method in accordance with Claim 3, wherein the act of determining that the at least one potential participating computing system is authorized to join the lobby further comprises the following:

an act of determining that the at least one potential participating computing system has properly provided a password corresponding to the data conference.

5.   A method in accordance with Claim 2, wherein the act of determining that the at least one potential participating computing system is authorized to join the lobby comprises the following:

an act of determining that the at least one potential participating computing system has properly provided a password corresponding to the data conference.

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6.　　A method in accordance with Claim 1, wherein the act of receiving an indication from an intranet computing system that the at least one potential participating computing system is authorized to join the data conference comprises the following:

an act of receiving an indication from the conference organizing computing system that the at least one potential computing system is authorized to join the data conference.

7.　　A method in accordance with Claim 6, further comprising the following:

an act of facilitating communication between the conference organizing computing system and the at least one potential computing system in order to determine whether the at least one potential participating computing system is authorized to join the data conference.

8.　　A method in accordance with Claim 1, wherein the act of receiving an indication from an intranet computing system that the potential participating computing system is authorized to join the data conference comprises the following:

an act of receiving an indication from an intranet computing system other than the conference organizing computing system that the at least one potential computing system is authorized to join the data conference.

9.　　A method in accordance with Claim 8, further comprising the following:

an act of facilitating communication between the intranet computing system and the at least one potential computing system in order to determine whether the at least one potential participating computing system is authorized to join the data conference.

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10. A computer program product for use in a network environment that includes a trusted network, an intranet and an external network, and a lobby server that intercedes to allow external computing systems to be scrutinized before being admitted to a data conference with one or more intranet computing systems, the computer program product comprising one or more computer-readable media having thereon computer-executable instructions that, when executed by one or more processors at the lobby server, cause the lobby server to perform a method for the lobby server establishing a data conference between one or more intranet computing systems and one or more external computing systems, the method comprising the following:

an act of a lobby server receiving a request to establish a data conference from a conference organizing computing system in the intranet;

an act of determining that the conference organizing computing system is authorized to establish the data conference;

an act of establishing a lobby that may be joined by potential participating computing systems in the external network, the lobby being an object or group of objects that permits authorization of potential participating computing systems in the external network without directly allowing access to the subject data of the data conference;

an act of receiving a request to join the lobby or data conference from at least one of the potential participating computing systems in the external network;

an act of joining the at least one of the potential participating computing systems to the lobby;

an act of notifying the conference organizing computing system that the at least one potential participating computing system has requested access to the data conference;

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an act of receiving an indication from an intranet computing system that the at least one potential participating computing system is authorized to join the data conference; and

an act of joining the at least one potential participating computing system to the data conference.

11.   A computer program product in accordance with Claim 10, wherein the one or more computer-readable media are physical media.

12.   A computer program product in accordance with Claim 11, wherein the one or more computer-readable media are system memory.

13.   A computer program product in accordance with Claim 11, wherein the one or more computer-readable media are persistent memory.

14.   A computer program product in accordance with Claim 10, wherein the one or more computer-readable media further have thereon computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of determining that the at least one potential participating computing system is authorized to join the lobby prior to the act of joining the at least one potential participating computing system to the lobby.

15.   A computer program product in accordance with Claim 14, wherein the computer-executable instructions for performing the act of determining that the at least one

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potential participating computing system is authorized to join the lobby comprise computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of determining that the at least one potential participating computing system has properly provided a conference identifier corresponding to the data conference.

16.   A computer program product in accordance with Claim 15, wherein the computer-executable instructions for determining that the at least one potential participating computing system is authorized to join the lobby further comprise computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of determining that the at least one potential participating computing system has properly provided a password corresponding to the data conference.

17.   A computer program product in accordance with Claim 14, wherein the computer-executable instructions for determining that the at least one potential participating computing system is authorized to join the lobby comprise computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of determining that the at least one potential participating computing system has properly provided a password corresponding to the data conference.

18   A computer program product in accordance with Claim 10, wherein the computer-executable instructions for receiving an indication from an intranet computing

system that the at least one potential participating computing system is authorized to join the data conference comprise computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of receiving an indication from the conference organizing computing system that the at least one potential computing system is authorized to join the data conference.

19. A computer program product in accordance with Claim 18, wherein the computer-readable media further has thereon computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of facilitating communication between the conference organizing computing system and the at least one potential computing system in order to determine whether the at least one potential participating computing system is authorized to join the data conference.

20. A computer program product in accordance with Claim 10, wherein the computer-executable instructions for receiving an indication from an intranet computing system that the at least one potential participating computing system is authorized to join the data conference comprise computer-executable instructions that, when executed by the one or more processors, cause the lobby server to perform the following:

an act of receiving an indication from an intranet computing system other than the conference organizing computing system that the at least one potential computing system is authorized to join the data conference.

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21.   In a network environment that includes a trusted network, an intranet and an external network, and a lobby server that intercedes to allow external computing systems to be scrutinized before being admitted to a data conference with one or more intranet computing systems, a method for the lobby server establishing a data conference between one or more intranet computing systems and one or more external computing systems, the method comprising the following:

an act of a lobby server receiving a request to establish a data conference from a conference organizing computing system in the intranet;

an act of determining that the conference organizing computing system is authorized to establish the data conference; and

a step for allowing access to one or more potential participating computing systems in the external network to the data conference in a secure manner.

22.   A method in accordance with Claim 21, wherein the step for allowing access to one or more potential participating computing systems in the external network to the data conference in a secure manner comprises the following:

an act of establishing a lobby that may be joined by potential participating computing systems in the external network, the lobby being an object or group of objects that permits authorization of potential participating computing systems in the external network without directly allowing access to the subject data of the data conference;

an act of receiving a request to join the lobby or data conference from at least one of the potential participating computing systems in the external network;

an act of joining the at least one of the potential participating computing systems to the lobby;

an act of notifying the conference organizing computing system that the at least one

potential participating computing system has requested access to the data conference;

an act of receiving an indication from an intranet computing system that the at least

one potential participating computing system is authorized to join the data conference; and

an act of joining the at least one potential participating computing system to the data

conference.

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23.   In a network environment that includes a trusted network, an intranet and an external network, and a lobby server that intercedes to allow external computing systems to be scrutinized before being admitted to a data conference with one or more intranet computing systems, a method for a conference organizing computing system in the intranet organizing a data conference to which one or more external computing systems may join, the method comprising the following:

an act of the conference organizing computing system generating a request to establish a data conference;

an act of transmitting the request such that at least a derivative of the request is received by the lobby server;

an act of receiving a notification from the lobby server that at least one potential participating computing system in the external network has joined a lobby associated with the data conference, the lobby being an object or group of objects that permits authorization of potential participating computing systems in the external network without directly allowing access to the subject data of the data conference; and

an act of transmitting an authorization such that at least a derivative of the authorization is received by the lobby server, the authorization indicating that the at least one potential participating computing system is authorized to join the data conference.

24.   A method in accordance with Claim 23, further comprising the following:

an act of receiving a notification that the at least one potential participating computing system has joined the data conference.

25.   A method in accordance with Claim 23, further comprising the following:

an act of determining that the at least one potential participating computing system is authorized to attend the data conference prior to the act of transmitting the authorization.

26.   A method in accordance with Claim 25, wherein the act of determining that the at least one potential participating computing system is authorized to attend the data conference comprises the following:

an act of challenging the at least one participating computing system such that the at least one participating computing system may successfully achieve the challenge if they are on an invitation list.

27.   A computer program product comprising one or more computer-readable media having thereon computer-executable instructions that, when executed by one or more processors at the conference organizing computing system, cause the conference organizing computing system to perform the method recited in Claim 23.

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28. In a network environment that includes a trusted network, an intranet and an external network, and a lobby server that intercedes to allow external computing systems to be scrutinized before being admitted to a data conference with one or more intranet computing systems, a method for an external computing system to gain access to a data conference established by a conference organizing computing system in the intranet, the method comprising the following:

an act of an external computing system receiving an invitation to join a lobby hosted by the lobby server, the lobby being an object or group of objects that permits authorization of potential participating computing systems in the external network without directly allowing access to the subject data of the data conference;

an act of generating a request to join the lobby;

an act of transmitting the request to join the lobby to the lobby server; and

an act of receiving an indication that the external computing system has successfully joined the data conference.

29. A method in accordance with Claim 28, wherein the request to join the lobby also represents a request to join the data conference.

30. A method in accordance with Claim 28, further comprising the following:

an act of generating a request to joint the data conference; and

an act of transmitting the request to join the data conference to the data conference.

31. A method in accordance with Claim 28, further comprising the following:

an act of the external computing system participating in the data conference.

32.   A method in accordance with Claim 28, further comprising the following:

an act of transmitting credentials necessary to join the lobby to the lobby server.

33.   A method in accordance with Claim 32, further comprising the following:

an act of transmitting credentials necessary to join the data conference to the lobby server.

34.   A method in accordance with Claim 28, further comprising the following:

an act of transmitting credentials necessary to join the data conference to the lobby server.

35.   A computer program product comprising one or more computer-readable media having thereon computer-executable instructions that, when executed by one or more processors at the conference organizing computing system, cause the conference organizing computing system to perform the method recited in Claim 28.

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